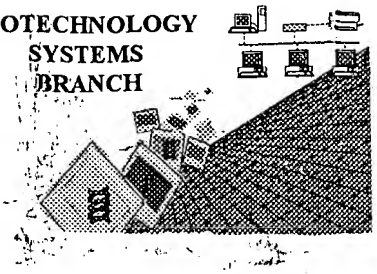
MATCH & RETURN

BIOTECHNOLOGY SYSTEMS BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/701,588A
Source: 1600 RULE
Date Processed by STIC: 9/26/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO **REDUCE** ERRORED SEQUENCE LISTINGS, **PLEASE** USE THE **CHECKER VERSION 3.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , **EFS Submission User Manual** - ePAVE)
2. **U.S. Postal Service:** U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. **Hand Carry directly to:**
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
   Or
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. **Federal Express, United Parcel Service, or other delivery service to:** U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

#9

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 09/701,588A

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1	Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2	Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.
3 ✓	Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
4	Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
5	Variable Length	Sequence(s)____contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6	PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
7	Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
8	Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000
9	Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
10	Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
11	Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
12	PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13	Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

#9

1600

RAW SEQUENCE LISTING DATE: 09/26/2002
PATENT APPLICATION: US/09/701,588A TIME: 10:49:12

Input Set : A:\PTO.txt
Output Set: N:\CRF4\09262002\I701588A.raw

pg 1-7

Does Not Comply
Corrected Diskette Needed

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: UNITED BIOMEDICAL INC., ET AL.

(ii) TITLE OF INVENTION: ARTIFICIAL T HELPER CELL EPITOPES AS IMMUNE STIMULATORS FOR SYNTHETIC EPTIDE IMMUNOGENS

(iii) NUMBER OF SEQUENCES: 151

(iv) CORRESPONDENCE ADDRESS:
(A) ADDRESSEE: Morgan & Finnegan, L.L.P.
(B) STREET: 345 Park Avenue
(C) CITY: New York
(D) STATE: NY
(E) COUNTRY: USA
(F) ZIP: 10154-0054

(v) COMPUTER READABLE FORM:
(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC Windows
(D) SOFTWARE: Word 97

(vi) CURRENT APPLICATION DATA:
C> **(A) APPLICATION NUMBER: US/09/701,588A**
C> **(B) FILING DATE: 21-Jun-1999**
(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: 09/100,414
(B) FILING DATE: 20-JUNE-1998

(viii) ATTORNEY/AGENT INFORMATION:
(A) NAME: Maria H. Lin
(B) REGISTRATION NUMBER: 29,323
(C) REFERENCE/DOCKET NUMBER: 1151-4158PC1

(ix) TELECOMMUNICATION INFORMATION:
(A) TELEPHONE: 212-758-4800
(B) TELEFAX: 212-751-6849

ERRORED SEQUENCES

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
E> **(D) TOPOLOGY: LINEAR**

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(ii) MOLECULE TYPE: peptide

RAW SEQUENCE LISTING DATE: 09/26/2002
PATENT APPLICATION: US/09/701,588A TIME: 10:49:12

Input Set : A:\PTO.txt
Output Set: N:\CRF4\09262002\I701588A.raw

```
     101     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
     103       Asp Val Ser Asp Val Lys Gly Val Val Val His Lys
     104       1               5                   10
     105       Val Asp Gly Val
E--> 106            15 15
     124 (2) INFORMATION FOR SEQ ID NO: 6:
     126      (i) SEQUENCE CHARACTERISTICS:
     127           (A) LENGTH: 15 amino acids
     128           (B) TYPE: amino acid
     129           (D) TOPOLOGY: linear
     131     (ii) MOLECULE TYPE: peptide
     133     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
     135       Ile Ser Glu Ile Lys Gly Val Ile Val His Lys Ile
E--> 136       1               5                   10 10
     137       Glu Gly Ile
     138                 15
     156 (2) INFORMATION FOR SEQ ID NO: 8:
     158      (i) SEQUENCE CHARACTERISTICS:
     159           (A) LENGTH: 15 amino acids
     160           (B) TYPE: amino acid
     161           (D) TOPOLOGY: linear
     163     (ii) MOLECULE TYPE: peptide
     165     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
     167       Leu Ser Glu Ile Lys Gly Val Ile Val His Lys
E--> 168       1           5 5             10 10
     169       Leu Glu Gly Val
E--> 170             15 15
     789 (2) INFORMATION FOR SEQ ID NO: 46:
     791      (i) SEQUENCE CHARACTERISTICS:
     792           (A) LENGTH: 45 amino acids
     793           (B) TYPE: amino acid
     794           (D) TOPOLOGY: linear
     797     (ii) MOLECULE TYPE: peptide
     799     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:
     801       Thr Ala Lys Ser Lys Lys Phe Pro Ser Tyr Thr Ala
     802       1               5                   10
     803       Thr Tyr Gln Phe Gly Gly Ile Thr Glu Ile Arg Thr
     804                 15                  20
     805       Val Ile Val Thr Arg Ile Glu Thr Ile Gly Gly Glu
     806       25                  30                  35
     807       His Trp Ser Tyr Gly Leu Arg Pro Gly
E--> 808                 40                  45
     1209 (2) INFORMATION FOR SEQ ID NO: 68
     1211     (i) SEQUENCE CHARACTERISTICS:
     1212          (A) LENGTH: 30 amino acids
     1213          (B) TYPE: amino acid
     1214          (D) TOPOLOGY: linear
     1216     (ii) MOLECULE TYPE: peptide
     1218     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68
```

misaligned amino acid nos. – see item 3 on Error Summary Sheet

same error

same

45 ← insert

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RAW SEQUENCE LISTING DATE: 09/26/2002
PATENT APPLICATION: US/09/701,588A TIME: 10:49:12

Input Set : A:\PTO.txt
Output Set: N:\CRF4\09262002\I701588A.raw

```
     1220       Lys Lys Lys Val Arg Val Val Thr Lys Val Val Thr
     1221       1               5                   10
     1222       Val Pro Ile Ser Val Asp Gly Gly Glu His Trp Ser
     1223               15                  20
     1224       Tyr Gly Leu Arg Pro Gly
E--> 1225       25                  30 ←
     1681 (2) INFORMATION FOR SEQ ID NO: 94:
     1683      (i) SEQUENCE CHARACTERISTICS:
     1684           (A) LENGTH: 46 amino acids
     1685           (B) TYPE: amino acid
     1686           (D) TOPOLOGY: linear
     1688     (ii) MOLECULE TYPE: peptide
     1691     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:
     1693       Ile Ser Ile Thr Glu Ile Arg Thr Val Ile Val Thr
     1694       1               5                   10
     1695       Arg Ile Glu Thr Ile Leu Phe Gly Gly Cys Gly Glu
     1696               15                  20
     1697       Thr Tyr Gln Ser Arg Val Thr His Pro His Leu Pro
E--> 1698       25                  30                  ~~35~~ 35
     1699       Arg Ala Leu Met Arg Ser Thr Thr Lys Cys
E--> 1700               ~~40~~ 40               ~~45~~ 45
     1743 (2) INFORMATION FOR SEQ ID NO: 97:
     1745      (i) SEQUENCE CHARACTERISTICS:
     1746           (A) LENGTH: 42 amino acids
     1747           (B) TYPE: amino acid
     1748           (D) TOPOLOGY: linear
     1750     (ii) MOLECULE TYPE: peptide
     1752     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:
     1754       Leu Ser Glu Ile Lys Gly Val Ile Val His Lys Leu
     1755       1               5                   10
     1756       Glu Gly Val Gly Gly Cys Gly Glu Thr Tyr Gln Ser
     1757               15                  20
     1758       Arg Val Thr His Pro His Leu Pro Arg Ala Leu Met
E--> 1759       25                  30                  ~~35~~ 35
     1760       Arg Ser Thr Thr Lys Cys
E--> 1761               ~~40~~ 40
     2297 (2) INFORMATION FOR SEQ ID NO: 126:
     2299      (i) SEQUENCE CHARACTERISTICS:
     2300           (A) LENGTH: 51 amino acids
     2301           (B) TYPE: amino acid
     2302           (D) TOPOLOGY: linear
     2304     (ii) MOLECULE TYPE: peptide
     2306     (ix) FEATURE:
     2307           (A) NAME/KEY: Modified site
     2308           (B) LOCATION: 22 ?
L-> 2309           (D) OTHER INFORMATION: /note="(e-N)Lys" ? Ser is at location 22
     2311     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:
     2313       Ile Ser Ile Ser Glu Ile Lys Gly Val Ile Val His
     2314       1               5                   10
```

p4

do you mean location 20? (Xaa)

RAW SEQUENCE LISTING DATE: 09/26/2002
PATENT APPLICATION: US/09/701,588A TIME: 10:49:13

Input Set : A:\PTO.txt
Output Set: N:\CRF4\09262002\I701588A.raw

```
W--> 2315       Lys Ile Glu Gly Ile Leu Phe Xaa Glu Ser Val Glu
     2316               15                  20
     2317       Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys
     2318       25                  30                  35
     2319       Ser Ile Arg Ile Gly Pro Gly Gln Ala Phe Tyr Ala
E--> 2320                  40                  ~~48~~
     2321       Thr Gly Asp                     45
     2322           50
     2324 (2) INFORMATION FOR SEQ ID NO: 127:
     2326      (i) SEQUENCE CHARACTERISTICS:
     2327           (A) LENGTH: 51 amino acids
     2328           (B) TYPE: amino acid
     2329           (D) TOPOLOGY: linear
     2331     (ii) MOLECULE TYPE: peptide
     2334     (ix) FEATURE:
     2335           (A) NAME/KEY: Modified site
     2336           (B) LOCATION: 22
C--> 2337           (D) OTHER INFORMATION: /note= "(e-N)Lys"
     2339     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 127:
     2341       Ile Ser Ile Thr Glu Ile Arg Thr Val Ile Val Thr
     2342       1               5                   10
W--> 2343       Arg Ile Glu Thr Ile Leu Phe Xaa Glu Ser Val Glu
     2344               15                  20
     2345       Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys
     2346       25                  30                  35
     2347       Ser Ile Arg Ile Gly Pro Gly Gln Ala Phe Tyr Ala
E--> 2348                  40                  ~~48~~
     2349       Thr Gly Asp                     45
     2350           50
     2352 (2) INFORMATION FOR SEQ ID NO: 128:
     2354      (i) SEQUENCE CHARACTERISTICS:
     2355           (A) LENGTH: 51 amino acids
     2356           (B) TYPE: amino acid
     2357           (D) TOPOLOGY: linear
     2359     (ii) MOLECULE TYPE: peptide
     2361     (ix) FEATURE:
     2362           (A) NAME/KEY: Modified site
     2363           (B) LOCATION: 20
C--> 2364           (D) OTHER INFORMATION: /note= "(e-N)Lys"
     2366     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 128:
     2368       Ile Ser Leu Thr Glu Ile Arg Thr Val Ile Val Thr
     2369       1               5                   10
W--> 2370       Arg Leu Glu Thr Val Leu Phe Xaa Glu Ser Val Glu
     2371               15                  20
     2372       Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys
     2373       25                  30                  35
     2374       Ser Ile Arg Ile Gly Pro Gly Gln Ala Phe Tyr Ala
E--> 2375                  40                  ~~48~~
     2376       Thr Gly Asp                     45
```

do you mean location 20?

RAW SEQUENCE LISTING DATE: 09/26/2002
PATENT APPLICATION: US/09/701,588A TIME: 10:49:13

Input Set : A:\PTO.txt
Output Set: N:\CRF4\09262002\I701588A.raw

```
2377           50
2379 (2) INFORMATION FOR SEQ ID NO: 129:
2381      (i) SEQUENCE CHARACTERISTICS:
2382           (A) LENGTH: 51 amino acids
2383           (B) TYPE: amino acid
2384           (D) TOPOLOGY: linear
2386     (ii) MOLECULE TYPE: peptide
2388     (ix) FEATURE:
2389           (A) NAME/KEY: Modified site
2390           (B) LOCATION: 20
C--> 2391      (D) OTHER INFORMATION: /note= "(e-N)Lys"
2393     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 129:
2395       Ile Ser Ile Thr Glu Ile Arg Thr Val Ile Val Thr
2396       1               5                   10
W--> 2397  Arg Ile Glu Thr Val Ile Phe Xaa Glu Ser Val Glu
2398               15                  20
2399       Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys
2400       25                  30                  35
2401       Ser Ile Arg Ile Gly Pro Gly Gln Ala Phe Tyr Ala
E--> 2402              40                  ~~48~~
2403       Thr Gly Asp                    45
2404           50
2772 (2) INFORMATION FOR SEQ ID NO: 148:
2774      (i) SEQUENCE CHARACTERISTICS:
2775           (A) LENGTH: 52 amino acids
2776           (B) TYPE: amino acid
2777           (D) TOPOLOGY: linear
2779     (ii) MOLECULE TYPE: peptide
2782     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 148:
2784       Ile Ser Ile Ser Glu Ile Lys Gly Val Ile Val His
2785       1               5                   10
2786       Lys Ile Glu Gly Ile Leu Phe Gly Gly Glu Ser Val
2787               15                  20
2788       Glu Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg
E--> 2789  25                  30                  ~~36~~35
2790       Lys Ser Ile Arg Ile Gly Pro Gly Gln Ala Phe Tyr
2791                  40                  45
2792       Ala Thr Gly Asp
2793           50
2795 (2) INFORMATION FOR SEQ ID NO: 149:
2797      (i) SEQUENCE CHARACTERISTICS:
2798           (A) LENGTH: 52 amino acids
2799           (B) TYPE: amino acid
2800           (D) TOPOLOGY: linear
2802     (ii) MOLECULE TYPE: peptide
2804     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 149:
2806       Ile Ser Ile Thr Glu Ile Arg Thr Val Ile Val Thr
2807       1               5                   10
2808       Arg Ile Glu Thr Ile Leu Phe Gly Gly Glu Ser Val
```

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RAW SEQUENCE LISTING DATE: 09/26/2002
PATENT APPLICATION: US/09/701,588A TIME: 10:49:13

Input Set : A:\PTO.txt
Output Set: N:\CRF4\09262002\I701588A.raw

```
     2809                15                  20
     2810       Glu Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg
E--> 2811       25                  30                  ~~35~~
     2812       Lys Ser Ile Arg Ile Gly Pro Gly Gln Ala Phe Tyr
     2813                   40                  45
     2814       Ala Thr Gly Asp
     2815           50
     2817 (2) INFORMATION FOR SEQ ID NO: 150:
     2819      (i) SEQUENCE CHARACTERISTICS:
     2820           (A) LENGTH: 50 amino acids
     2821           (B) TYPE: amino acid
     2822           (D) TOPOLOGY: linear
     2824     (ii) MOLECULE TYPE: peptide
     2827     (ix) FEATURE:
     2828           (A) NAME/KEY: Modified site
     2829           (B) LOCATION: 20
C--> 2830           (D) OTHER INFORMATION: /note= "(e-N)Lys"
     2832     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 150:
     2834       Ile Ser Leu Thr Glu Ile Arg Thr Val Ile Val Thr
     2835       1               5                   10
Wd-> 2836       Arg Leu Glu Thr Val Leu Phe Xaa Glu Ser Val Glu
     2837                15                  20
     2838       Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys
     2839       25                  30                  35
     2840       Ser Ile Arg Ile Gly Pro Gly Gln Ala Phe Tyr Ala
E--> 2841                   40                  ~~48~~
     2842       Thr Gly                         45
     2843           50
     2845 (2) INFORMATION FOR SEQ ID NO: 151:
     2847      (i) SEQUENCE CHARACTERISTICS:
     2848           (A) LENGTH: 50 amino acids
     2849           (B) TYPE: amino acid
     2850           (D) TOPOLOGY: linear
     2852     (ii) MOLECULE TYPE: peptide
     2854     (ix) FEATURE:
     2855           (A) NAME/KEY: Modified site
     2856           (B) LOCATION: 20
C--> 2857           (D) OTHER INFORMATION: /note= "(e-N)Lys"
     2859     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 151:
     2861       Ile Ser Ile Thr Glu Ile Arg Thr Val Ile Val Thr
     2862       1               5                   10
Wd-> 2863       Arg Ile Glu Thr Val Ile Phe Xaa Glu Ser Val Glu
     2864                15                  20
     2865       Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys
     2866       25                  30                  35
     2867       Ser Ile Arg Ile Gly Pro Gly Gln Ala Phe Tyr Ala
E--> 2868                   40                  ~~48~~
     2869       Thr Gly                         45
     2870           50
```

see next page for more errors

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:151:

```
Ile Ser Ile Thr Glu Ile Arg Thr Val Ile Val Thr
1               5                   10
Arg Ile Glu Thr Val Ile Phe Xaa Glu Ser Val Glu
        15                  20
Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys
25                  30                  35
Ser Ile Arg Ile Gly Pro Gly Gln Ala Phe Tyr Ala
            40                  ~~48~~
Thr Gly                         45
    50
```

CLAIMS
We claim:
1. A T helper cell epitope selected from the group consisting of SEQ ID NOS: 6-22, 105, 123, 124, 31-35.

sample of extraneous text at end of Sequence Listing. Please delete all of it. Do not insert claim information or any information other than the Sequence Listing.

VERIFICATION SUMMARY DATE: 09/26/2002
PATENT APPLICATION: US/09/701,588A TIME: 10:49:14

Input Set : A:\PTO.txt
Output Set: N:\CRF4\09262002\I701588A.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:82 M:220 C: Keyword misspelled or invalid format, [(D) TOPOLOGY:]
L:97 M:220 C: Keyword misspelled or invalid format, [(D) TOPOLOGY:]
L:106 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:4
L:113 M:220 C: Keyword misspelled or invalid format, [(D) TOPOLOGY:]
L:136 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6
L:168 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:8
M:332 Repeated in SeqNo=8
L:808 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:46
L:1225 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:68
L:1417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:79 after pos.:0
L:1698 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:94
M:332 Repeated in SeqNo=94
L:1759 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:97
M:332 Repeated in SeqNo=97
L:2204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:12
L:2222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:121 after pos.:12
L:2240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122 after pos.:12
L:2309 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126 after pos.:12
L:2320 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:126
L:2337 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127 after pos.:12
L:2348 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:127
L:2364 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2370 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:128 after pos.:12
L:2375 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:128
L:2391 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:129 after pos.:12
L:2402 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:129
L:2506 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:136 after pos.:0
L:2530 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137 after pos.:0
L:2553 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138 after pos.:0
L:2576 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139 after pos.:0
L:2599 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2603 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140 after pos.:0
L:2622 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2626 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141 after pos.:0
L:2645 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2649 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:142 after pos.:0
L:2668 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2672 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:143 after pos.:0
L:2691 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]

VERIFICATION SUMMARY DATE: 09/26/2002
PATENT APPLICATION: US/09/701,588A TIME: 10:49:14

Input Set : A:\PTO.txt
Output Set: N:\CRF4\09262002\I701588A.raw

L:2695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144 after pos.:0
L:2714 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2718 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:145 after pos.:0
L:2737 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2741 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146 after pos.:0
L:2760 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147 after pos.:0
L:2789 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:148
L:2811 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:149
L:2830 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2836 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:150 after pos.:12
L:2841 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:150
L:2857 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:12
L:2868 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:151